

WHAT IS CLAIMED IS:

1. A material supply system comprising:

a supply device for sucking material from a storage tank or another reservoir, the supply device having an outlet port through which the sucked material is supplied under high pressure;

a primary supply line connected at the inlet thereof with the outlet port of the supply device so that the sucked material can be supplied under a first pressure through the primary supply line;

a secondary supply line through which the sucked material can be supplied under a second pressure;

a pressure reducing valve connected between the outlet of the primary supply and the inlet of the secondary supply line for making the second pressure lower than the first pressure;

a discharger for quantitative supply of material to a work, the discharger having an inlet port connected with the outlet of the secondary supply line;

a pressure sensor for sensing the port pressure nearly at the inlet port of the discharger and outputting a pressure signal as the basis for controlling the second pressure;

wherein, on the basis of the pressure signal, the pressure reduction ratio of the pressure reducing valve is so controlled that, if the sensed pressure is higher than a set upper limit value, the valve is fully closed, and that, if the sensed pressure is lower than a set lower limit value, the opening of the valve is adjusted to a value at which a slightly larger amount of material can flow through the valve than the total amount of material flowing therethrough while the discharger is operating; and

an accumulator provided on the secondary supply line;

wherein the internal pressure of the accumulator rises when the accumulator is filled with material, and wherein the accumulator restrains the port pressure from exceeding the upper limit value and from falling below the lower limit value.

2. A material supply system comprising:

a supply device for sucking material from a storage tank or another reservoir, the supply device having an outlet port through which the sucked material is supplied under high pressure;

a primary supply line connected at the inlet thereof with the outlet port of the supply device;

a secondary supply line through which the sucked material can be supplied under a supply pressure;

an automatic pressure regulating valve connected between the outlet of the primary supply line and the inlet of the secondary supply line for adjusting the supply pressure to a set value;

a discharger for quantitative supply of material to a work, the discharger having an inlet port connected with the outlet of the secondary supply line;

a pressure sensor for sensing the port pressure nearly at the inlet port of the discharger and outputting a pressure signal as the basis for controlling the supply pressure;

wherein, on the basis of the pressure signal, the opening of the pressure regulating valve is so controlled as to reduce the supply pressure if the sensed pressure is higher than a set value, and as to increase the supply pressure if the sensed pressure is lower than the set value; and

an accumulator provided on the secondary supply line;

wherein the internal pressure of the accumulator rises when the accumulator is filled with material, and wherein the accumulator makes the port pressure roughly equal to the set value.